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Patent

UNITED STATES PATENT APPLICATION

FOR

Identifying Image Content

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Identifying Image Content

5 Field of the Invention

The invention generally relates to identifying image content, and more particularly to using perceptual features of image data, e.g., an image or movie, for identifying the image data and illicit distribution thereof.

10 Background

Widespread availability of fast network connections has resulted in proliferation of software allowing users to share large data files encoding content, such as audio encodings (e.g., MP3 files), video encodings (e.g., Moving Picture Experts Group (MPEG), Microsoft Co.'s Video for Windows, Intel Co.'s Indeo, Apple Co.'s QuickTime, etc.), and other content and data files.

Well-known content sharing application programs include the Napster program created by Shawn Fannin, as well as Macster (Napster for Macintosh computers), Gnapster, and others. Older and more traditional file-sharing application programs, include the File Transfer Protocol (FTP), Unix-to-Unix Copy (UUCP), University of Minnesota's Gopher, etc. (Please note that all marks used herein are the property of their respective owners.)

Unfortunately, ease of content sharing has resulted in significant amounts of intentional and unintentional violation of intellectual property rights for shared content. This has resulted in many legal actions to shut down and ban use of content sharing application programs. Unfortunately, such actions also impede legitimate sharing.

Brief Description Of The Drawings

The features and advantages of the present invention will become apparent from the following detailed description of the present invention in which:

5 FIG. 1 illustrates a flow chart according to one embodiment for facilitating content sharing of protected content in accord with access rights for the protected content.

FIG. 2 illustrates, according to one embodiment, a flow chart of a user seeking to share candidate content with a recipient for the content.

10 FIG. 3 illustrates one embodiment for implementing the FIG. 2 comparison between extracted feature data for a candidate content and a reference content.

FIG. 4 illustrates a comparison between reference contents against themselves, degraded copies of the reference content, and entirely different content, where match confidence values are plotted on both the X and Y axes of the illustration.

15 FIG. 5 illustrates a suitable computing environment in which certain aspects of the invention may be implemented.

Detailed Description

20 FIG. 1 illustrates a flow chart according to one embodiment for facilitating content sharing of protected content in accord with access rights for the protected content, while allowing unprotected content to be shared freely.

The illustrated embodiment generally concerns extracting identification features from content to be protected, and storing the extracted identification features along with access rights within a data store, such as a database. This allows the data store to be